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Research Note

Parapharyngodon kartana in Two Skinks, *Emoia nigra* and *Emoia samoense* (Sauria: Scincidae), from Samoa

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ABSTRACT: Examination of 9 *Emoia nigra* revealed the presence of a nematode, *Parapharyngodon kartana* (prevalence 44%, mean intensity 3), in the large intestine and third-stage spirurid larvae in the small intestine. A single specimen of *Emoia samoense* also harbored *P. kartana* in the large intestine. These are new host records.

KEY WORDS: Nematoda, *Parapharyngodon kartana*, spirurid larvae, *Emoia nigra*, *Emoia samoense*, Scincidae.

The black skink, *Emoia nigra* (Hombron and Guichenot, 1853) Sternfeld, 1920, occurs in the South Pacific on the Caroline Islands, Bismarck Archipelago, Solomon Islands, New Hebrides, Fiji, Samoa, and Tonga (McCoy, 1980). The Sa-

moan skink, *Emoia samoense* (Duméril, 1851) Schmidt, 1923, is known from Fiji, Loyalty Islands, Samoa, and Tonga (Burt and Burt, 1932). The purpose of this note is to report the presence of the nematode, *Parapharyngodon kartana* (Johnston and Mawson, 1941) Mawson, 1971, and spirurid larvae in *E. nigra* and *P. kartana* in *E. samoense*. These findings represent new host records.

Nine *E. nigra*, mean snout–vent length (SVL) 89 mm ± 7 mm SD, were examined. Eight were from Tutuila Island, American Samoa (14°17'S, 170°41'W); 1 was from Upolu Island, Western Samoa (13°50'S, 171°45'W). A single *E. sa-*

moense (SVL 100 mm), also from Tutuila Island, was examined. Specimens were collected January 1990 with the exception of 1 *E. nigra* collected May 1989. Specimens were deposited in the herpetology collection of the Los Angeles County Museum of Natural History (LACM): *E. nigra* (138546–138554) and *E. samoense* (138545). The body cavity was opened ventrally and the esophagus, stomach, small intestine, and large intestine were slit longitudinally and examined under a dissecting microscope. The liver and body cavity were also examined for helminths. Each helminth was identified utilizing a glycerol wet mount.

Five of 9 (56%) *E. nigra* were infected with helminths; 4 contained the nematode *P. kartana* (1 male, 12 females) (44% prevalence; mean intensity 3) in the large intestine and 1 had spirurid larvae in the small intestine (11% prevalence; mean intensity 2). Seven *P. kartana* were recovered from the large intestine of the single specimen of *E. samoense*. Representative nematodes from *E. nigra* were deposited in the U.S. National Parasite Collection (Beltsville, Maryland 20705): *Parapharyngodon kartana* (81410) and spirurid larva (81411). We believe this to be the first report of nematodes recovered from the genus *Emoia*.

Parapharyngodon kartana was originally described from the scincid lizard, *Hemiergis peronii*, as *Thelandros kartana* by Johnston and Mawson (1941), but was moved to the genus *Parapharyngodon* by Mawson (1971). It has previously been reported only from South Australian lizards: Agamidae, *Amphibolurus fionni* by Mawson (1971); Gekkonidae, *Phyllodactylus marmoratus* by Angel and Mawson (1968); and Scincidae, *Lerista* sp. and *Rhodona* sp. by Mawson (1971). The measurements of the specimens from *E. nigra* are within the range of those from *H. peronii* as amended by Angel and Mawson (1968). The oral opening was surrounded by 6 lips each with a small papilla. Alae were present in the male for about two-thirds the body length, but were absent in the female. The male was 1.8 mm long with the caudal appendage inserted terminally. There was 1 pair of adanal papillae, 1 median and 2 lateral postanal papillae, and 1 pair

of papillae about midway along the caudal appendage. The spicule was 50 μ m long and very slightly chitinated. Females were 3.8–6.0 mm in length. There were distinct transverse annulations on the body approximately 11 μ m apart. Coils of the ovary wound around the corpus of the esophagus. The vulva was located in the third quarter of the body or about 1.5 mm from the posterior end in a 5-mm specimen. The caudal extremity tapered to a conical point. Eggs were asymmetrical with a pitted shell and subpolar operculum, 35 \times 85 μ m.

One species of amphibian and 15 species of reptiles occur in American Samoa (Amerson et al., 1982). The amphibian is the introduced giant toad, *Bufo marinus*; the reptiles include 2 marine turtles, 7 skinks, 5 geckos, and 1 snake. The degree to which *P. kartana* parasitizes other Samoan herpetofauna must await the examination of additional species.

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